

JUN 25 1900



COLMAN'S RURAL WORLD

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

ESTABLISHED 1848

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COLMAN'S RURAL WORLD

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LEVI CHUBBICK, Business Manager.

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Letters should be addressed to COLMAN'S RURAL WORLD, 721 Olive St., St. Louis, Mo. Advertising rates furnished on application. Advertisers will find the RURAL WORLD one of the best advertising mediums of its class in the United States.

"Success in farming," says Prof. A. A. Brigham, of the Rhode Island Agricultural College, "will depend in the future as it has in the past, chiefly on common sense and hard work, but given that foundation then success depends very largely on the preparation and training of the man." And so it is in all walks of life. A college education does not, as some seem to think, put one in a position to get through life with less work; it simply means that the education will, if of the right sort, enable one to make his labor count more for himself and the world than when uneducated.

Advertisers of all kinds of live stock, poultry, etc., should know how to handle their customers so as to effect sales. Whatever is worth doing at all is worth doing well. Would-be purchasers are very much influenced by the character of the letters they receive in reply to their inquiries. They form some opinion of the breeder by these letters. If cheap envelopes and a poor quality of paper are used, if the letters are written in an awkward manner, notwithstanding one may have good stock, an unfavorable impression is made upon the would-be buyer. If, on the other hand, the advertiser has used good envelopes and good paper on which his card has been printed and if a neat cut had been included and the letter had been written in a neat hand and to the point, sales in hundreds of cases would have been made that otherwise are lost. It always pays to get up a neat circular telling all about the quality of the stock to be sold, the breeding, etc., and by enclosing these circulars in letters one saves a great deal of letter writing. Many advertisers complain that they don't make sales; they get many enquiries, but can't sell. Is not the fault in a great measure their own? They should know how to handle customers so as to make sales and some of the points that the RURAL WORLD has hinted at should not go unheeded.

GROUT BILL SET FOR DECEMBER 8.

The Grout Bill, which has attracted so much attention in Congress, and has been three times considered by the president and his cabinet for various political reasons, will be voted upon December 8 by the House of Representatives, three days after the assembling of Congress for the short session. This bill provides for an increase of the tax on oleomargarine colored to resemble butter, from two to ten cents per pound. Such oleomargarine cannot be lawfully sold in thirty-two leading states, but \$2,000,000 pounds were illegally sold therein last year, hence the demand for national legislation. The bill reduces the tax on that oleomargarine made from natural white color, from two cents to one-fourth cent per pound, as the workman may have the mixture if he wants it, and does not need to take it if he doesn't. Over 200 of the 356 Congressmen are said to favor the passage of the bill.

TENNESSEE AGRICULTURE.

On pages two and eight of this issue is presented a description of the dairy barn of the University of Tennessee—that should be of considerable value to our readers. Not that the barn described is such an one as we would advise all of our readers to build—comparatively few of those needing barns can afford to put \$5,000 into a barn—but there are many ideas to be gathered from studying the article and illustrations. There is no questioning the fact that money put into properly planned barns will yield large returns, and especially is this true in dairy farming. We concur with Dr. Dabney, director of the Tennessee Experiment Station, in regarding Tennessee as being well suited for dairying, but due attention must be given to proper shelter for cows and for their feed. The advantages of silos should be carefully considered by Tennessee farmers. A Tennessee correspondent, Mr. P. S. Garman, expresses the opinion in a letter on this page that the state is deficient in native grasses, and, for that reason, cannot be suited to dairying. We think the Experiment Station people will be able to overcome this difficulty, if it exists, by introducing grasses or by showing how the silo and forage crops can be made to supply the deficiency. We hope to hear from Dr. Dabney, Prof. Soule, Mr. Garman, "Maplehurst" and other Tennesseeans on how best to develop Tennessee agriculture.

SPECIAL OFFER.

While the regular subscription price for the RURAL WORLD will remain at one dollar per year, yet, in order to more than double our present circulation for the year 1900 we have determined for a brief period to allow all of our present subscribers to renew their subscriptions by sending the name of a NEW subscriber with their own for one dollar—thus getting two papers for one year for only one dollar. In all cases, however, the additional name or names must be new subscribers. Renewals will not be received at fifty cents, except when accompanied by a new subscriber. Two NEW subscribers at the same time, however, will be received for one year for one dollar. New subscribers can also send additional new subscribers on the same terms. This is below the actual cost of the paper. But so anxious are we to have the RURAL WORLD enter tens of thousands of new homes that we are willing to make this low offer. We know the RURAL WORLD is doing a grand work in uplifting the farmer, and we are more than anxious that its benefits shall be extended to the widest limits, hence this special offer. We hope to have 100,000 subscribers on our list for 1900.

PROF. VAN DEMAN'S history of the Bahia, or seedless orange, as presented on page three of this issue, will be read with interest. This is authoritative and will be accepted; but how difficult it is to correct an error that has been promulgated by the press. In the interest of truth and justice Prof. Van Deman's article should be widely published by the horticultural press.

HORTICULTURAL COMMISSIONER.

To the Pan-American Exposition.

Mr. A. Nelson of Lebanon, Mo., was endorsed by the State Horticultural Society at the late meeting at Chillicothe for appointment as Commissioner of Horticulture from Missouri to the Pan-American Exposition at Buffalo, N. Y., in 1901. The appointment would be a most excellent one. Mr. Nelson is one of the most prominent horticulturists in the state, is a leading member of the State Horticultural Society and has been for a number of years its treasurer. He has had large experience in making exhibits of fruits both individually and officially. Many of the Missouri apples that are now winning high honors in Paris are of his selection and packing. He is a native of Western New York and grew up in the fruit business there. He also has an extended personal and business acquaintance in Buffalo that would be of great assistance to him in making an exhibit of Missouri's horticultural development and resources.

THE FARMER'S LONG DAY.

There are times in the life of every progressive and successful man, no matter whether he is engaged in commercial pursuits; whether he is striving to win laurels in any of the professions or whether he is the young farmer who hopes one day to be known as the man of influence in his county and state at all gatherings of farmers because he has been a financial success, when, if such ends are attained, the working day will begin long before the morning dawns for his "no-body neighbor" and continues long after the "no-body neighbor" has sunk to peaceful slumbers. This is part of the price to be paid for financial success and satisfactory honors. But rising at four o'clock and continuing on the go daily until nine o'clock at night will demand a penalty. Some farmers think such procedure indicates thrift. Yes, in a season of rush, but, no, decidedly when, by systematic plan the business of farming can be managed without such strain on muscle and nerve. No man can do intelligently his best work when his body is so weary, that as soon as he sits down in any quiet spot he falls asleep. The right disposition of the hours for work on the farm should be comprehensively studied. The farm home that judiciously settles this problem has taken a very advanced position in agriculture. Many an honest and well-meaning farmer by long days, not works, but drags the push, heart and life out of himself and his family, thus making the life on a farm hateful to them all. The farmer needs time at this as well as other seasons for reading. When crops are growing and needing cultivation, then should he keep in touch with others to know wherein mistakes may be remedied and successes be made more successful. What good will reading do one, when the paper falls from the hand, because an overtaxed nature is too weary to keep eyes open when activities cease? Systematize the work so that proper rest may be taken. Life is only worth living when rightly lived. The boys and girls will prize more the parents who taught them the value of life, than the ones leaving broad acres. If with the latter is bequeathed the conception that life is one long day of weary toil.

A RED LETTER DAY.

In Missouri Horticulture.

The corner-stone of the Missouri Fruit Experiment Station building at Mountain Grove, Wright County, Mo., will be laid next Saturday, June 23. Elaborate arrangements are being made for a big picnic—40 acres of ground have been set aside for camping purposes—and it is expected that thousands of people from all over the Ozark country will be there to take part in the parade and other ceremonies. Hon. A. M. Dockery and Hon. Joseph Flory, gubernatorial candidates, have been invited to make speeches, also Hon. N. F. Murray and L. A. Goodman, president and secretary respectively of the State Horticultural Society, and many other prominent Missourians. Hon. Norman J. Colman, whose active interest in Missouri horticulture covers a period of 50 years, hopes to be present and make an address. He will be greatly pleased to meet RURAL WORLD readers on that occasion.

CURING COW PEA HAY.

Editor RURAL WORLD: I have raised cow peas for hay and if properly handled this hay ranks with the best for horses, mules and cows. Hays will cut it very well in winter, especially the peas. If two crops are raised here in Arkansas the plan is about as follows: Break the land good and deep with a two-horse turning plow, harrow down and then sow the peas broadcast, using four to five pecks per acre; plow with a one-horse turning plow and harrow off. When the leaves near the ground begin to turn yellow, mow and let sun from 11 to 3 hours. If the vines are very thick and heavy, as they generally are, turn the hay over after it has well cured on top. Be careful and avoid cutting in cloudy weather, for if pea hay gets very wet, its value will be reduced 50 per cent and sometimes it is entirely ruined. Don't bale it, for it invariably molds. Put about one or two wagon loads in the barn. Then throw a few poles or rails on this when more hay may be put in. Cow pea hay requires lots of air.

Pasture second crop and turn under what is left, for cow peas are unexcelled as a fertilizer. If only one crop or pasture is desired, sow broadcast after wheat is harvested. Plow the peas in with a one-horse plow and harrow off. They can be sown in drills, three feet apart and cultivated the same as corn.

T. H. CANTRELL, Creaghead Co., Ark.

SOIL MOISTURE.

How the Supply May Be Controlled.

Editor RURAL WORLD: The importance of thoroughly understanding the principles which underlie proper tillage is recognized by every intelligent thinking farmer, yet too many are still negligent or ignorant of these principles to secure good tilth under all conditions. Plowing, which is usually the first operation upon the soil, should be thoroughly and properly done, for after-cultivation can never make up for defects in this fundamental operation. The soil should be moist enough so that as the furrow as it tends to break and crumble, leaving it in a pulverized condition, rather than in clods or lumps. The amount of moisture in the soil is a very important factor to consider when plowing, and also in the harrowing and after-cultivation. The moisture in the layer of agricultural soil can be quite largely controlled by proper methods of drainage. If we wish to drain land which has been wet by heavy rains after plowing, we can by rolling reestablish to a large extent capillary attraction and bring the water to the surface for evaporation. The process of drying can be checked at the proper stage by thoroughly pulverizing the upper portion of the soil, which will break the connection of the soil particles and act as a check. This matter of being able to control the moisture content of the soil to a considerable degree is worthy of careful consideration as it has much influence upon the temperature and mechanical condition of the soil. Especially in seasons of drought it may mean the success or failure of the crop.

The difference between cultivating land one inch in depth and three inches in depth in its different effects upon the moisture content of the soil is very considerable, as is also the effect of the styles of tools used in the work. The tool making wide, deep grooves and ridges increases the rate of evaporation, while one which pulverizes and makes the soil very fine will decrease the rate of evaporation. The first gives more surface to the air, and consequently the moisture evaporates more rapidly. The other, not only more completely breaks the capillary attraction by which the water rises to the surface, but exposes less surface of the soil to the air. Thus we see how, by intelligent methods and selection of implements, we can, to a considerable extent, control this most important element of moisture, which so largely contributes to the welfare of the crop, in its influence upon the temperature and mechanical condition of the soil, and in securing for the crop its nutriment from the soil or from the fertilizing elements which may have been added.

J. A. TILLINGHAST, R. 1, Agricultural Experiment Station, Kingston, R. I.

GRASSING WORN LANDS.

Suggestions by an East Tennesseean.

Editor RURAL WORLD: One of the most practical and helpful talks made at the East Tennessee Farmers' Convention was by Paul F. Kefauver, of Madisonville, Tenn., advocating the grassing of poor fields. Seeding to clover, even when practiced judiciously in a well-ordered rotation of crops, has proven, on the great majority of farms throughout this section, to be an almost profitless waste of good money. So seldom is a good stand secured, that I think on the whole its actual expense is not repaid. From constant cropping our southern uplands have become so deficient in humus, lime, nitriding bacteria, or other elements of plant food that our soils are sick. The trouble is not in any one, but more or less in all of these causes. As this worsted condition has been a good while coming about, it will take time and skill to rectify the evils and to bring our fields to their pristine glory of former clover days. The farmers should not kill the wild clovers, sedge and patches of blue grass, as they will act as soil feeders and will loosen it up by their roots, the beef or mutton made in grazing will pay more than the same area possibly paid in grain even with the increased productiveness of such soil.

In a 20-acre field the writer sowed to grass without a grain nurse crop last fall, and to clover this spring, to find the stand thinner than on an adjoining piece of a similar character, but in oats. Grasses and clover, too, alone, have made almost twice the growth that they have when sown with oats. The cover in the second field is a sorry crop excepting about two acres that were lately cleared, on this it stands thick and grows luxuriantly, whereas on the land not adjoining it seems to be scarcely able to get a foothold.

My idea is to let any grass grow that will, cover the bare places with straw and in the gullies with brush and rock. Then take the money regularly put into expensive grasses and buy feed stuff or other necessities from these, and these will soon cover the land. Harrow this and seed to blue grass, red-top and orchard grass and this will give heavier soil than most seeded pastures that I see which have about one green blade to every square foot. MAPLEHURST, Russellville, Tenn.

THE ONE-MULE SYSTEM.

Editor RURAL WORLD: In a recent issue your able correspondent, Wm. Manning of Woodruff County, this state, advises a Green County farmer to bed up his wet land with one mule. I always regret to hear any one advocate the one-mule system; it is the curse of southern agriculture. I recently counted 16 men following 16 mules in a ten-acre field, plowing for peas, each plow running scarcely four inches deep by five wide. What could they have done if one man had been following three mules hitched to a sixteen-inch steel plow? Just "figger" a little. If your Green County reader will plow with three good nules or horses to a sixteen-inch steel plow, in lands from ten to thirty steps wide, leaving good open dead furrows, he will double discount the "one mule" both in time and yield. Now don't understand me as trying to criticize friend Manning for I am a neighbor of his, that is I live in Phillips County, same state, sometimes go to Brinkley, and milk old (and young) moody cows. But I don't feel so sure about that feeding question. We have a silo, separator and Babcock tester, but I can't feed one cow up to four per cent milk, although her pedigree is a yard long; while one next to her will go 14 any day. Will cotton seed meal bring her up? Our customers are crying for more butter and we would like to give it to them. PHILLIPS CO., ARK.

FROM EASTERN TEXAS.

A Filter for Sorghum Juice Wanted.

Editor RURAL WORLD: I am a new subscriber to the RURAL WORLD, but its weekly visits have convinced me that it is the best agricultural paper I have any knowledge of. I think every farmer in the United States should take and read it. It is worth ten times its cost. But in this country we have men who, although called farmers, never read anything on the line of farming. But I am going to try to get up a big club for the RURAL WORLD this coming winter.

We have had a great deal of rain this spring and the coldest one I have seen in some years, especially in this latitude (32° degrees). The crops are about three weeks later than usual. I am farming on a small scale and try to diversify and be self-sustaining. I grow sorghum and make my own syrup. I have a nice plot of sorghum growing. Will some one of the RURAL WORLD readers please tell me how to make a cheap filament filter for sorghum juice? Harrison Co., Tex. B. C. WILSON.

Mr. Wilson has our thanks for his appreciative words. We trust he will succeed in convincing many of his neighbors that money spent in subscribing for the RURAL WORLD is well invested. Those who make effort to get good farm papers circulated are doing the world good service.

FROM MIDDLE TENNESSEE.

Where Sasafra, Saw Brier and Sedge Grass Grow.

Editor RURAL WORLD: I write from a point on the southwest part of the Cumberland Plateau in Lawrence County, Tenn., about 25 miles north of the Tennessee-Alabama line. While our county has not the reputation of being one of the best in Middle Tennessee, it is bounded on the north by Maury and on the east by Giles counties, said to be two of the best counties in the middle division of the state. Our soil is underlaid with a red subsoil and in its virgin state is quite productive.

The grains mostly and successfully grown are wheat, corn, oats and rye. Red clover, timothy and red top are grown to some extent, but not successfully. President C. W. Dabney of our Agricultural Experiment Station, in the Twelfth Annual Report, says that "Tennessee is distinctly a dairy state." This, it seems to me, is a mistake, for, so far as my observation extends, we have no very valuable grass that is indigenous to our soil. And this, in my opinion, is a prime necessity if dairying is to be made profitable at the prices obtainable for the products in our county. With some knowledge of the several grasses grown from Pennsylvania to Oregon, there is, in my opinion, none that excels blue grass, and I doubt whether any one would care to risk his reputation as a grass producer and stock grower upon the statement that blue grass grows successfully in Middle Tennessee. That it does so in other parts of the state is not questioned. But our soil seems to have unlimited capacity for three kinds of vegetable growth, namely, sasafra, "saw" brier and sedge grass, and to rid the land of these and grow grasses that are profitable is no easy task for the farmer in our county. But don't worry, stock peas are coming to the front. MORE ANON.

HOW TO THRESH PEAS.

With a Threshing Machine.

Editor RURAL WORLD: I have been so flooded with so many letters of inquiry from RURAL WORLD readers as to how I managed to thresh cow peas with a common threshing machine that I must ask space in your valuable paper to answer those inquiries, hoping it may be at the same time beneficial to many others of our brother farmers.

It would be impossible to explain the changes that would necessarily have to be made in the various makes of machines, but as all threshing machinery is made to conform to certain general principles, an explanation of how one machine is arranged for this work will indicate how others must be fixed. The first thing necessary is to have the peas or hay harvested and cured properly, as you would for hay; then put in bulk as in the mow or rack, and allowed to stand until they become toughened, or what is termed in the sweat. Then they are ready, according to our experience, to thresh.

The machine comes next. We changed the pulley on the cylinder for one much larger than the one used in grain threshing, so as to lower the speed at least one-half, using the very worst worn teeth we could get. Then we took out every other tooth, using only one section of the cylinder, with the remainder of the space filled with blank concaves.

In lowering the speed of the cylinder on some machines one lowers the speed of all other parts of the machine. This should not be done. All other parts of the machine should run full speed. The same as in threshing grain. This can be done by increasing the size of pulleys, or decreasing the size, as the case may be. This I think can be readily understood by any practical machine man. The ridges also have to be of larger mesh than those used in grain threshing, so the peas can readily pass through to the grain auger. As I said in the outset these are the general principles as I understand them, and those are the changes I made in my machine as near as I can explain, and I was successful in threshing the peas. R. W. SLAYTON, King Bee, Ripley Co., Mo.

FROM WESTERN ARKANSAS.

Editor RURAL WORLD: We are here in Central West Arkansas, bordering on the Indian line. Formerly this was considered a dark corner, but four years ago the Kansas City and Southern R. R. came booming through the mountains and on to the Gulf, giving us a good outlet north and south. Towns have been built all along the line, adding much to the appearance of the country, as well as to its substantial prosperity. Mens, the county seat of this (Polk) county, is situated in a cove and entirely surrounded by mountains. There are many fine farms in these valleys. The foot hills are rough and stony, but they are just the thing for fruit and berries. The spring and summer range is splendid. Of course we have good water and plenty of it. There is no malaria. This is a great place for stock of all kinds, especially sheep and goats. Thousands of acres of government land on the sides of the mountains are subject to homestead entry. Why are we not abreast with northern Arkansas and

southern Missouri? I will try to explain. People living in the low lands south and east of here, like this "old reb," stuck to the swamps until broken up and down, then made for the mountains, just any place, where we could find health, good water and a small living. So we all got here somehow. For 17 years I have observed closely, and during that time most all that have left have managed in some way to get back again. What we need are brains, energy and (capital to put us in the front rank. J. D. GARLAND, Polk Co., Ark.

A SHORT COURSE IN AGRICULTURE.

A short course in agriculture offered by the University of Tennessee at Knoxville, Tenn., during the winter of 1900 was a success in every sense of the word. As a result, a broader and more liberal course will be offered the coming winter. Large additions are being made to the equipment of the Agricultural Department in order to meet this increased demand for agricultural education. A new brick dairy building is being erected which will be provided with every facility for teaching farm dairying, home dairying, commercial dairying, butter making, cheese making, milk testing, milk pasteurization, etc. It will be one of the finest buildings of the kind in the south and will be especially built for the purpose of giving the character of instruction noted above.

Great enthusiasm is being manifested over the short course in agriculture. Already over eighteen men have applied for information concerning this course. There will be at least fifty men in attendance during the coming winter, and as it will be difficult to accommodate more than this number with the present laboratory facilities, it will be well for those intending to take this course to notify the Professor of Agriculture at the earliest possible date, as in case more than fifty men should apply, it would be necessary to place their names on file for the opening of the next course.

The demand for stockmen, dairymen, foremen, etc., greatly exceeds the supply, and as the source offered is practical, short (six weeks), and the cost of attending is insignificant (\$40.00 to \$50.00, exclusive of railroad fare), it is hoped that many young men of Tennessee will avail themselves of the opportunity offered by the University for securing the much-needed scientific information regarding farm work. Professor of Agriculture, University of Tennessee, Knoxville.

The RURAL WORLD is pleased to note the many evidences of the energy that is being put into the Agricultural Department (we wish they would call it the Agricultural College) of the University of Tennessee. Prof. Andrew M. Soule as professor of agriculture and his associates are surely doing good work and the institution is providing opportunities which, if improved by the farmers of Tennessee, will, in a few years, revolutionize the farming of that state.

A SUGGESTION ON THE STRIKE.

Editor RURAL WORLD: I have watched with a good deal of interest the strike now going on in your city. This thought has occurred to me: Incorporate the union and make it responsible in law and let employers deal with the union instead of the individual. This would lead to the formation of rival unions and thus keep prices within bounds. It would also take the responsibility of disciplining the unruly on the union instead of the employer. You may call it a labor trust or what you like. So long as there seems a determination to maintain the union, the individual is lost sight of. This would test the union and give it a trial on the same basis as organized capital. CALLAWAY CO., MO. J. L. ERWIN.

LETTER BOX.

PUTNAM CO., N. E. MO.—Almost every farmer we have talked to lately has expressed the opinion that he never saw better prospects for crops than there are this year. The only crop that is at all short is the hay crop. The pastures, however, are good.—Enonville (Mo.) Republican.

RANDOLPH CO., CENTRAL MO.—The outlook for a good crop was never better. Corn is doing its best; oats as fine as we ever saw; grass is not as good as it might be. Wheat is just immense. Mr. Dennis, one of our best farmers, says he never saw better prospects for a good crop in his life.—Cor. Moberly (Mo.) Democrat.

BENTON CO., S. W. MO.—If fair weather prevails, a great deal of wheat will be harvested in Benton county this week, and preparations were made to push the work this week, but the rain and threatening weather Monday prevented. The prospect for a fine yield was never better in Benton county, and with good weather the bulk of the crop will be harvested this week.—Warsaw (Mo.) Times.

BARTON CO., S. W. MO.—This section was visited at 10 a. m. to-day with a terrible storm of rain, hail and wind. The rainfall was 2½ inches, accompanied by hail with stones the size of a small hen's egg. Window glass was broken out and the fruit is all beaten to pieces. Crops of all kinds are badly damaged. The wheat crop, which is the best we have had for fifteen years, has been just harvested and is in very bad condition, with the shocks blown down and badly scattered. JUNE 17. E. E. FINK.

The Cliff, June 16. DYPE.

PETTIS CO., CENTRAL MO.—The prospect for a fine yield of wheat was never better in Pettis County than at present.

The stand is good and well headed, the berry fine and ripening just right. The acreage in the county is short, but the increased yield per acre will make up for the loss in acres. With good weather, the bulk of the crop in this county will be harvested the present week.—Sedalia (Mo.) Democrat.

BOONE CO., CENTRAL MO.—We have a fine prospect for good crops of all kinds this season, and we hope that we may appreciate these blessings as we should, and render that homage that is due to Him who is so bountifully blessing our neighbors, and may this be a season of a beautiful spiritual harvest and of the sending of many true laborers into this harvest field that the field may be extended, and the bad seed that produces tares rooted out in order that the wheat may grow and bring forth a hundred fold.—Centralls (Mo.) Guard.

NEW MADRID CO., S. E. MO.—This county is harvesting a good crop of wheat, but under unfavorable conditions, as we are having too much rain. Corn and cotton look well, but are getting very weedy and grassy owing to the excessive rain. My wife thinks that she has solved the much discussed question, "What it cheat?" She says it is the unpollinated wheat. What think you? JUNE 14. F. M. KIRLIN.

We think that cheat is cheat and comes from cheat (or chess) seed as certainly as oats do from oat seed. PULASKI CO., ILL.—Fine weather for ducks at this writing and has been for three or four weeks, as it rains nearly every day. Wheat is fine and is ripe and falling some on account of rain. Corn is getting to be hard to find on account of grass and weeds. Grass, clover, stock peas and upland corn are looking fine. Stock is doing well. Grapes promise a fine crop. Save all the water you can. Fill up your ponds. Cisterns should have been filled. JUNE 15. JNO. V. BHANER.

NEWTON CO., S. W. MO.—The wheat crop is better than for several years. Harvesting began June 7. The acreage is about average. Oats are looking well and the indications are favorable for an average crop. A large acreage was sowed. Clover haying began last week. The crop will be very uneven—some good and some very spotted. Corn generally is making a very good growth. Rain was badly needed, but we had a good one this morning. Early potatoes are not very good and the indications are for a poor crop. Peaches are about half a crop. There will be an abundance of blackberries if nothing happens to them. M. E. CAMERER, JUNE 15.

CALLAWAY CO., CENTRAL MO.—Strawberries were a fine crop and lasted about a month. Early blackberries and raspberries are now ready for use and yielding well. Plums are a full crop, apples and peaches have dropped badly; grapes very full. Wheat is fine and is ripe and falling some on account of rain. Corn is getting to be hard to find on account of grass and weeds. Grass, clover, stock peas and upland corn are looking fine. Stock is doing well. Grapes promise a fine crop. Save all the water you can. Fill up your ponds. Cisterns should have been filled. JUNE 15. J. L. ERWIN.

BARTON CO., S. W. MO.—Mr. R. Powell of Lamar, Mo., calls the RURAL WORLD office on Monday last and reported agricultural affairs in Barton County as being in splendid condition. Crops are considerably more advanced than at this date last year. Flax, castor beans and broom corn, all of which are grown extensively in that part of the state, are all well. Hay is fair and abundant. The fruit crop bids fair to be abundant. The fruit crop is also somewhat disappointing.

The Lamar cheese factory is in a flourishing condition and increasing its output. Mr. Powell is handling sheep and reports the business as being on a good paying basis. His flock has yielded him a profit of 150 to 200 per cent during the year just past. REFFINGHAM CO., ILL.—The excessive rains of the last few weeks have very greatly delayed farm work. The result is weedy corn fields. Much of the corn is but from two to four inches high and almost irretrievably imbedded in a mass of weeds. The prospect for a crop of corn is very discouraging and without a cessation of rain very soon will be a failure. Wheat is so much of a failure that there is really none. But as every cloud has a silver lining so has the situation in other respects. The fruit crop bids fair to be abundant. Small fruits have yielded wonderfully and the indications point to a large crop of apples, peaches, pears and blackberries. The hay crop will be the largest for years, provided the weather is suitable for harvesting it. The streams have overflowed their banks several times since the first of April and considerable damage has been done to bottom land in washouts and carrying away the soil and much of the corn has been washed out. The corn on low lands is not only fully choked with weeds, but is now of a lively yellow color. JUNE 16. DYPE.

Horticulture.

The winter meeting of the Missouri State Horticultural Society will be held at Farmington, St. Francis Co., Mo., December 4, 5 and 6, 1900.

Secretary L. A. Goodman informs the members of the society that the varieties of apples on which Missouri was awarded a first prize at the Paris Exposition were: Ben Davis, Golden Wonder, Minkler, Willow Twig, York Imperial, Clayton, Grimes, Ingram, Genet and Winesap.

HORTICULTURAL TALKS.

The State Horticultural Meeting.

I arrived at Chillicothe before any of the rest, as heretofore, a later arrival caused some complaints, and I was determined to be on hand in time. It seems strange so little is known about us, among those not associated with our society. When making inquiries of business men just adjoining the house where the meetings were to be held, they knew nothing about it; not even that there was a meeting to be held there at all. But soon we met with some of the reception committee; then the ball rolled.

The Masonic Temple, in which the meeting was held, is a suitable hall and roomy enough, but like nearly all buildings of the kind, lacks one important feature, that is proper ventilation. For the want of this the audience suffered greatly with the heat. Why architects, who seem to know all about style and symmetry, fail to see this defect in nearly all their buildings puzzles me.

The arrangements for the display of fruits and flowers were well made, and the collection of both was creditable. Mr. G. W. Feherby, a nurseryman, I was told, whom I should have been pleased to meet, but did not, sent a fine collection of palms and India rubber trees and some others. But why go into detail? There were many collections of fruits and flowers, that showed that the people in and around that city are up to date in taste. There are many fine lawns and gardens in the place that are a treat to look upon. The citizens treated us kindly and courteously.

The officers were all present, your humble scribbler included, who often fails. The program was carried out in regular order, and all came off pleasantly, excepting for the heat which was severe. The various papers read and the discussions followed, but none had failed to interest the hearers. The reports of the fruit prospects from different parts of the state talked pretty well. Apples are estimated at about one-third of a crop, perhaps a little more.

The display of strawberries was good and the fruit was in fine condition, as the berries were about in their prime at the time. I took none along as our best were gone, and when I exhibited a fruit it must be of the best.

The attendance of members was quite creditable considering the time of year.

Prof. Smith made a splendid display of fruit—some of the new humpbacks, to show how the people will allow themselves to be swindled. The strawberry tree of which I am told nearly \$200 were taken from one little town near here, is now pretty well known. Our burning bush is called the strawberry tree, but the fruit is by no means like the strawberry. It is not eaten by man, but sometimes by the birds. I cautioned the people in our local papers about it, but the advice was not heeded. Those who came to me and complained, when they found themselves swindled, were asked whether they read the RURAL WORLD. They answered, "No." The plants that a friend sent me to test are not growing, though the plants sent looked like the scarlet trumpet creeper. One man showed his trees, not in leaf, and they proved to be catpaws. Others have the strawberry tree of our forests. This latter would pass in a regular trade, but the agents should not tell the people that the tree will yield a quart of splendid berries every day for three months. Just so long as the farmers refuse to invest a dollar or two in agricultural and horticultural papers, they will be imposed upon by these scamps.

The strawberry crop is about over, and in the next issue or so after it is a full report will be given of its behavior here.

NO REST FOR THE WORKER.—Let a man have his grounds in pretty fair condition at this season of the year, then let him go from home one week and then see the condition of his grounds when he comes back. If spared until Monday, June 11, there will be war on the weeds and

there will be slaughter of the weeds. The nearest weed I have is purslane. When I left a week ago, the ground was clean and now it is covered with a nice carpet of the above. It is a weed that is easily destroyed and tells that the land is fertile. SAMUEL MILLER. Bluffton, Mo.

A TRUE HISTORY OF THE BAHIA ORANGE.

Editor RURAL WORLD: Having noticed the recent and mistaken account in the RURAL WORLD of the origin and introduction of the seedless orange, which is extensively grown in California, and now known all over the country as the best orange that is generally sold in our markets, I wish to state the facts regarding this valuable variety. They have been repeatedly published before, but erroneous stories kept going the rounds of the press which are misleading and the "Citizen" of Pomona, California, is badly mistaken in his ideas in several particulars. I have the facts from first hands, or I would not be so positive.

About 1886 (not 1878) Mr. Wm. Saunders, the gardener of the U. S. Department of Agriculture, learned of the existence of an orange of very choice qualities at Bahia, Brazil, which was growing there under cultivation, and not in the swamps of the Amazon. A lady who had traveled there was his informant. He at once wrote to our consul there to have budded trees grown and sent to Washington. This was done according to his directions. In 1890, twelve trees arrived in good condition, and not "six shoots" out by natives from wild trees as has been stated; nor did any of them "die from lack of care" at Washington. All of the twelve grew to bearing age in the orange house here.

I have seen them and eaten fruit from some of them, given me from the hands of Mr. Saunders. None of these original trees were ever sent out except one to Florida within recent years. Young trees were propagated by budding from any or all of the trees, as came handiest, upon little seedlings grown from seeds taken from rotten oranges, procured in the market. These young trees were sent to Florida first, then to Louisiana and California. In the year 1893, Mrs. C. Tibbets was in Washington on her way to Riverside, California, where she and her husband were to become members of the pioneer colony of fruit-growers, who were making their first experiments there. Mr. Saunders suggested that he should send some of the trees for trial, and it was done. They reached Riverside safely, were planted close to the original cottage and tended with care. They soon came into bearing and the seedless fruit was so large, so good in flavor and the trees bore so heavily that the variety attracted much attention. Both trees were standing in February, 1898, and were in good health, though not large, owing to the soil about them in the door yard. This I know, because I was there at that time and talked with Mr. and Mrs. Tibbets about the trees and their wonderful history, while I gathered and ate fruit from them.

The "Citizen of Pomona" says Mrs. Tibbets got from the department grounds the four surviving orange tree shoots from Brazil. Also states, "One of them died from neglect, that another was broken and chewed up by a cow." None of this is correct, unless four trees were sent instead of two. I presume the two trees are standing there yet, if not removed to make way for improvements. The Tibbets are dead and the property is in other hands. They were old and childless when I was there in 1898.

The trees sent to Florida and Louisiana bore about the same time as those sent to California, but for some unaccountable reason they did not prove very fruitful. This variety has never been so valuable anywhere as in the irrigated regions of the Pacific Slope. The fruit is sweeter and thinner skinned, but the trees rarely bear well in the Gulf States. Its stems are devoid of pollen in all climates. I have critically examined them, and the plants are so deformed that they are seldom ever able to become fertilized by the pollen from other varieties. A seed is a very rare thing in the fruit.

It is thus that the two trees first planted in California in the yard of L. C. Tibbets became the means of starting an industry that is today famous all over the world.

It may prove valuable in Hawaii. I once sent a dozen trees to Japan.

As to the name of this orange, Mr. Saunders of Washington, D. C., who is the one entitled to the chief honor of introducing it and also had the right to name it, gave it the name Bahia (pronounced Bah-yah) after the place in Brazil from whence it came.

When he sent the young trees to California and elsewhere, they were labeled Bahia. But when the variety began to show its importance in California the name "Washington Navel" was given it to distinguish it from another orange they were growing that had the peculiar navel mark, that came from Australia and had the name Australian Navel. I have seen and tasted the latter and it is far inferior to the Bahia.

The people at Riverside thought the Tibbets' trees were of a different variety than those grown at Washington and in Florida, and called their's the Riverside Navel. The fallacy of this belief was soon proven and they have since called it the Washington Navel, but refused to accept the proper name, Bahia, and so it will probably be to the end of time, in popular language.

There are several other oranges having the peculiar navel mark, which comes in every case from the abnormal structure of the pith. Some have it only in an occasional specimen, as we see by looking carefully at the oranges imported from Europe. I have also seen the mark on those brought from Japan to San Francisco. Sustain and Double Imperial are two varieties in which the mark is always found.

The true origin of the Bahia will prob-

ably never be known, for trees of the same variety were imported by Mr. Saunders under the name, Melitensis, from France, just after the close of the Franco-Prussian war in 1871. He had asked the French government officials to send him a collection of foreign fruits, and when the war broke out there were a number of varieties in the Jardin des Plantes about ready for shipment, and at its close what had escaped destruction by the bombardment were sent to Washington. This orange was among them. It proved to be identical with the one procured in Brazil about the same time. The French may have obtained the original stock from Brazil or possibly from the Mediterranean region, and grown in the Jardin des Plantes. Melitensis means very sweet, so that the good quality of the fruit was known in the French government conservatory prior to the last war with Germany, and how long before that time we do not know. Elsewhere in Europe this variety has not been found, so far as we know.

PRUNING CHERRY TREES.

Editor RURAL WORLD: I have just returned from the state horticultural meeting held at Chillicothe. I was assigned a place on the program of that meeting for a paper on the "Cherry-Varities and Cultivation." One thing I advocated in that paper was the cutting back of the trees at planting time. This practice has been in vogue among advanced horticulturists ever since I can remember. The principle involved is very simple and can be so easily demonstrated that it seems to me no one can fail to comprehend it. The newly transplanted tree—and this will apply to other fruit trees as well as the cherry—has been deprived of a portion of its roots and, at the time, of its food supply as well, except a limited quantity. In order to enable the tree to best utilize this limited food supply, we reduce the number of buds according to the condition of the tree and the loss of roots it has sustained. If the tree is a slender grower, or is in a weakly condition, or has sustained a heavy loss of roots, we reduce the number of buds to a few; but if it is a strong, vigorous tree, and has a good system of roots, we leave more buds. The food supply already in the tree—with what little it can draw from the soil, is then elaborated on these few remaining buds. Very naturally the buds appreciate this extra supply of food, and as a result, they develop into large, perfect buds. This is as simple a proposition as true also as to say that three or four pines would grow and develop into better hogs if the remainder of the litter of eight or ten were removed from the dam. But if, on the other hand, all the buds are allowed to remain they must all be impoverished for lack of nourishment and consequently cannot put forth strong, healthy growth or foliage. If the cutting back or removing of the surplus buds in the winter or very early spring, the remaining buds have a longer time in which to store up this food supply and are ready to start a strong, vigorous growth on the approach of growing weather in the spring. Hence, the rule, if you want wood growth, prune while the tree is dormant, but if fruit is wanted prune while the tree is growing, for if pruned while in leaf the growth is checked and the formation of fruit buds is induced.

I supposed that all horticulturists of large experience in planting trees were pretty well agreed in this matter; but imagine my surprise to learn that two of our leading horticulturists of the state, of large experience in planting trees, members of the Missouri State Horticultural Society and in attendance at the meeting at Chillicothe, did not believe the principle was correct, or at least did not practice it and further expressed themselves as believing the opposite course the best—i. e., leaving all the branches intact at planting time. One of the gentlemen went even further and advocated the Stringfellow method of cutting off nearly all the roots while the trees were not to be cut at all. I presume it is pretty generally known that the Stringfellow method originated in Texas, where fruit trees can be quite readily grown from cuttings. But if my memory is not at fault, Professor Stringfellow advises cutting back to a few very buds. However favorable this method may have become in the South, it certainly has not been favorably reported upon by the experiment stations of the North and West.

What do tree planters think of such teaching? I do not pretend to say that a tree cannot be planted without removing some of the buds or cutting back, as it is termed, but unless the season is favorable it will either die or make a feeble growth and be exposed to the ravages of fungi and insects.

G. F. TURNER. Linn Co., Mo.

A VISIT TO HENRY SCHNELL'S.

RURAL WORLD readers who feel acquainted with Mr. Henry Schnell, through his contributions to these columns, will be interested in the following from the "Democrat-Leader" of Fayette, Mo., in which the editor tells of a recent visit to Mr. Schnell's gardens near Galgow, Mo.:

"The day was delightful, the ride exhilarating, and our visit to the garden a feast for the eyes and inner man as well. Mr. Schnell, the genial proprietor, and his estimable wife, gave us a hearty welcome and their hospitality was unbounded. The large force of hands at the garden were as busy as bees; a score or more of lads and lassies were gathering the luscious strawberries; the cherry trees were full of pickers, and a half dozen men were busy packing early vegetables for the nearby markets, where he has a ready demand for his products. During the berry season Mr. Schnell ships about 100 gallons of strawberries a day, besides what he furnishes home patrons. We were invited right into the middle of the 'patch' and told to 'eat our way out.' How we did revel. Besides berries and vegetables, the green house with potted flowers, the growing nursery stock, etc., were interesting sights. No need for Howard countians to send away from home for anything in that line. Mr. Schnell has as fine a grower, and he is as clever and straight in his dealings as they make them. We enjoyed a big dinner prepared by his good wife, and all in all, had an immense time. Truly, it was good to be there."

In the harvest of 1899 there were 1,350,000 gallons of wine produced in France; 795,107,500 gallons produced in Italy; 194,282,700 gallons produced in Spain, and 161,865,000 produced in Roumania. The total production of the old world is estimated at 2,338,101,704.

SOAKING SEEDS.

Soaking seeds in pure water has some disadvantages; it dissolves some substance from the seeds, which is brown in color and gives off the smell of ammonia under heat, showing that nitrogenous matter, which nature has stored there to nourish the young germ, has been soaked out. The plant grown from seeds soaked in plain water will be weaker and paler in color than from seeds not so treated. Seeds soaked in water dry very quickly, and the evaporation leaves them dryer than before; therefore such seeds frequently fall in a dry soil, or during a period of dry, warm weather.

These evil results may be easily avoided by soaking seeds in a solution of some chemical salts of a fertilizing nature. Such solution can dissolve but little from the seed; on the contrary it thoroughly impregnates them with fertilizing ingredients, so that the young plants appear darker and decidedly stronger.

Seeds so steeped always continue moist, in consequence of the properties of the saline substance they contain—American Gardening.

MISSOURI STRAWBERRY PATCHES.

C. F. Peluse has already picked about 16,500 quarts of strawberries from his acre patch at Paris. The demand has been larger than the supply and the prices have been satisfactory. The prices on the local market this week have been four boxes for \$5c. or \$1.25 per six-gallon crate. —Paris (Mo.) Appeal.

Most of the small strawberry growers in the locality regret now that they did not increase their strawberry acreage this spring by setting out some new plants. Harvesting \$50 to \$150 worth of berries from an acre of ground beats raising corn and wheat as a money-maker. The danger of over stocking the market is not near so serious as at first imagined. The principal thing to study is proper distribution. It is found that a small town like Seneca can consume 40 to 50 crates of berries a week, and there are hundreds of such towns independent of the large cities that do not receive half as many berries as they would consume if the fruit was at hand. The question of profit in strawberry growing hinges upon proper distribution and avoiding glutting the markets.

Every strawberry growing community should have a competent secretary, whose sole business during the season should be that of marketing the fruit for all the growers of the association. By this means fair prices can be obtained and a profit realized from the industry.—Seneca (Mo.) Dispatch.

THE PEACH-LEAF CURD.

This disease is much more abundant this season than usual in Oklahoma. The symptoms are a curling and yellowing of the leaves, due to the presence of a fungus on them which destroys the green color and causes the leaves to grow into abnormal shapes. The fungus may often be seen as a light mildew. A part of this fungus makes its way into the young buds which are already forming for the next year's growth. In this place the fungus passes the remainder of the year and is ready to start its growth as the leaves develop the following spring. No opportunity for experiments on this disease has occurred at the Oklahoma station, but extensive work has been done by W. M. Scott in Georgia on the same disease with the result that Bordeaux mixture made as follows, has proven successful:

1. Dissolve six pounds of blue stone in six gallons of water in an earthen vessel.

2. Mix four pounds of fresh lime in six gallons of water.

Four 20 slowly into 1 and add twenty gallons of water. Mix thoroughly and strain through coarse gunny-sacking into a barrel. Reject the undissolved material and add eighteen gallons of water and the mixture is ready for use. The mixture will keep in this condition as long as desired.

This should be applied to the trees with spray pump just before they come into bloom. One application is usually sufficient if made at the right time. In orchards that have not been treated the disease may be slightly checked by spraying with the same mixture, but leaves that have once been curled can never be restored to usefulness. Then the best way to do is to keep the trees cultivated and in a vigorous condition so that they will throw out a second set of leaves with which to mature the fruit of the season.

HOW THE DUST MULCH ACTS.

Though so much has been written and said about saving the moisture in the soil, comparatively few gardeners take advantage of it by means of the dust mulch, or "Vicks Magazine." If the soil of the garden is allowed to bake over the top forming a hard crust the evaporation of water will be rapid, while if the surface is stirred and pulverized often the moisture cannot rise above the stirred surface, but is kept down near the roots of the plant where it can do the most good. The dust mulch may have been thoroughly plowed and harrowed, well fertilized and put in the best possible shape for raising a good crop, but if the moisture is not kept in the soil a small crop will probably be the result. This is just as true of corn as of the small garden truck. Any mulch will cause the same effect, but one of straw or refuse is not always practical and a good dust mulch makes a very neat appearance, and shows at first glance that the land has had careful attention; the dust mulch cannot be made without thorough cultivation, which also removes the weeds, thus answering a two-fold purpose. The theory of evaporation of water from the soil is not generally understood, but the water rises by capillary action, and as long as the ground is left undisturbed, the air spaces are equal and it rises gradually until it reaches the surface when it is lost in the air. These spaces must be very small or the water cannot rise, and that is just the condition they are in when the soil is packed down hard.

It can be illustrated in this hold it over a lump of loaf sugar. The liquid barely touches the bottom of the sugar. The liquid is drawn to the top of the lump by capillary action, but if the air spaces in the top of the lump are made larger the liquid will stop in it, as in them, as the wider the spaces the harder it is for the liquid to fill them up and rise further. In just the same way the water in the soil, when it gets to the dust mulch where the loose earth causes wider spaces.

The work of stirring the surface of the soil should be done at least once a week in a garden, as the mulch thus provided soon passes away by the action of the weather. When plants grow large enough to shade the ground somewhat, this stirring can be given up. After a rain, as soon as the soil dries off a little, it should be well stirred with a fine garden rake.

The Apiary.

MOVING BEES.

There is probably nothing which causes so many losses or much vexation to the beginner as the moving of bees, and if we stop to think a moment we will see why, says F. W. Greene in Brookfield (Mo.) "Gazette." A bee always marks the location of his home exactly every spring, or when they have swarmed and once located he starts out in the morning and returns to the exact spot he has located; if it is not there he is lost. If it is three feet away he won't enter it, evidently taking it for another colony which it would be death to enter, so he flies around until he gets lost or dies.

Now we must move bees, and to do it successfully we must do it in such a way as to cause him to mark his new location. This can be done in two ways. First you can take them two miles from home and leave them there three or four weeks, then when returned set a board up in front of the entrance in such a way as to impede, but not entirely hinder their flight out. This will cause them to mark their location, or you can move the hive 30 to 24 inches each day until the hive reaches its new location—moving only one hive at a time. Of course, if you move more than two miles you need take no precautions, as the bees will mark their new location in such a case.

AVOIDING BEE STINGS.

Avoiding bee stings while working with bees is a very simple thing. When I first started bee-keeping, they at times punished me very severely, says a writer in "Progressive Bee-Keeping." I did not know why, nor could I understand, until practical experience taught me. I used to wear a bee veil, but lately I have almost dispensed with it, as I have had very little use for it, only at certain times. Besides, wearing a veil all day is very unpleasant, especially in hot weather.

I never wore gloves in handling bees simply because they were too clumsy for me to do work in. I find it a great deal pleasanter to work with bees without veil and without gloves. Of course, at times, when there is reason for bees to be cross, I put on the veil. I have it with me in my tool box, and when I find it necessary, I wear it. I often work for three or four days with bees, not getting a single sting, unless I happen to bruise one or in case one gets up my sleeve. Again, there are days when I get a dozen or more stings.

To avoid many stings, proceed to the hive, puff a little smoke in at the entrance; not too much. Then quietly pry off the cover, being careful not to jar or to thump the hive; then puff a little smoke on the bees, and a little down between the frames, and proceed with work, being careful not to make quick movements, but steady. By practicing this way of working, a good deal of slight may be gained, and the movements and work be done quicker. Once being accustomed to your movements properly, you can practice in speed, and soon be able to work unmolested in regard to stings. At times it will require more smoke. If so, give them a puff or two, being careful not to give them too much, as too much smoke will do no good.

BEEES AND SPRAYING—A WARNING.

The Albany "Argus" of May 23 contained a brief account to the effect that many honey bees had been killed at Medusa, N. Y., by visiting trees sprayed while in full bloom with an arsenical poison. It was stated that one beekeeper lost his entire colony of 100 hives, valued at \$500. The report was investigated, with the following results:

Several men sprayed their fruit trees on Friday and Saturday, May 18 and 19, the former being a bright day. Trouble was first observed on the 20th. Of the condition of his apiary on that day, Mr. W. P. Makely writes:

"The sight that met my eyes was enough to paralyze any bee man. In front of each hive lay the full working force of the bees. Some in clusters apparently dormant, and others wiggling about as if in great agony. With the appearance of the sun there was a general movement among the bees in an effort to get as far away from the hive as possible. Those that had the strength would try to fly, but could only succeed in making three or four feet before they would drop to the ground. The next day, Monday the 21st, I opened a few hives and found all the workers gone, and a large amount of brood and but few young bees left. I think that most of the swarms will pull through, but our honey crop is gone and we can expect no swarm."

Mr. Makely estimates that practically all the field-workers were lost. Mr. Edwin Snyder claims to have lost between 80 and 90 per cent of his workers in his 90 to 100 swarms. Mr. Aaron Jennings has from 200 to 225 swarms, and the first serious consequences were observed on the 23d, when in the vicinity of more than half his hives he could scoop up handfuls of dead or dying bees.

Spread on the 21st and 22d 15 miles north and the same distance northwest of this man's place. A large quantity of dead bees have been received at my office, and they will be analyzed for the presence of arsenic. The destruction was fearful, and there is every reason to think that it was due to poison thrown upon trees in blossom. There is at present a law prohibiting the spraying of trees while in bloom; and this deplorable experience certainly indicates the wisdom of its remaining on our books and being enforced to the letter. There is a strong sentiment

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Dr. R. V. Pierce, Buffalo, N. Y.

Use Rock Salt for Brine, Pickles, Hides, Meats,
Ice Cream, Ice Making, Fertilizing and Refrigeration.

USE

Kansas Lumber Rock Salt

MINES AND WORKS.
For Stock, LYONS & KANOPOLIS, KAN.

PUREST, MOST HEALTHFUL, BEST, HIGHEST AWARDS AND MEDALS FOR PURITY.
WORLD'S EXPOSITION, CHICAGO, 1893; TRANSMISSISSIPPI EXPOSITION, OMAHA, 1898.

WESTERN ROCK SALT CO., ST. LOUIS, MO.

The Markets

WHEAT—Another advance and a very strong market. Demand chiefly from local millers for good milling wheat, and choice scarce. By sample: No. 2 red sold at 77c for car lots, E. side, and 78c for sack, this side; No. 3 red at 76c and 77c for car lots; No. 4 winter at 75c; No. 2 hard, quotable at 77c; No. 3 hard, 78c; No. 4 hard, 79c; No. 2 spring sold at 77c for car lots, E. side, and 78c for sack, this side; No. 3 spring at 76c and 77c for car lots; No. 4 spring at 75c and 76c for car lots; No. 2 white at 77c; No. 3 white at 76c; No. 4 white at 75c.

CORN—Strong. The demand rather limited and mainly from local sources; orders scarce at the price. On trk. No. 2 and No. 3 at 40c; No. 2 yellow at 41c; No. 3 yellow at 40c; No. 2 white at 41c; No. 3 white at 40c; No. 4 white at 39c.

OATS—Higher. Moderate offerings and only a local demand, but not much carried over. On trk. No. 2 at 24c; No. 3 at 23c; No. 4 at 22c; No. 2 Northern at 25c; No. 3 Northern at 24c; No. 4 Northern at 23c; No. 2 white at 24c; No. 3 white at 23c; No. 4 white at 22c.

RYE—Better. Good quality, rather slow sale. Prices on trk. now range: Timothy \$12.50; No. 1, \$10.00; No. 2, \$9.50; No. 3, \$9.00; No. 4, \$8.50; No. 5, \$8.00; No. 6, \$7.50; No. 7, \$7.00; No. 8, \$6.50; No. 9, \$6.00; No. 10, \$5.50; No. 11, \$5.00; No. 12, \$4.50; No. 13, \$4.00; No. 14, \$3.50; No. 15, \$3.00; No. 16, \$2.50; No. 17, \$2.00; No. 18, \$1.50; No. 19, \$1.00; No. 20, \$0.50.

MILFEED—Hardly anything offered and not much demand at the prices sellers ask. No. 1, \$10.00; No. 2, \$9.50; No. 3, \$9.00; No. 4, \$8.50; No. 5, \$8.00; No. 6, \$7.50; No. 7, \$7.00; No. 8, \$6.50; No. 9, \$6.00; No. 10, \$5.50; No. 11, \$5.00; No. 12, \$4.50; No. 13, \$4.00; No. 14, \$3.50; No. 15, \$3.00; No. 16, \$2.50; No. 17, \$2.00; No. 18, \$1.50; No. 19, \$1.00; No. 20, \$0.50.

HAY—The market showed no change. Choice clover in demand. Prairie slow sale. Prices on trk. now range: Timothy \$12.50; No. 1, \$10.00; No. 2, \$9.50; No. 3, \$9.00; No. 4, \$8.50; No. 5, \$8.00; No. 6, \$7.50; No. 7, \$7.00; No. 8, \$6.50; No. 9, \$6.00; No. 10, \$5.50; No. 11, \$5.00; No. 12, \$4.50; No. 13, \$4.00; No. 14, \$3.50; No. 15, \$3.00; No. 16, \$2.50; No. 17, \$2.00; No. 18, \$1.50; No. 19, \$1.00; No. 20, \$0.50.

PRICES ON CHANGE.

The following table shows the range of prices in future and cash grain:				
	Closed Saturday	Range To-day.	Closed To-day.	
Wheat—				
June	75 1/2	74 1/2—75 1/2	75 1/2	n
July	74 1/2	74 1/2—75 1/2	74 1/2	n
Aug.	74 1/2	74 1/2—75 1/2	74 1/2	n
Sept.	75 1/2	75 1/2—76 1/2	76 1/2	n
Corn—				
June	39 1/2	39 1/2—39 1/2	39 1/2	n
July	39 1/2	39 1/2—39 1/2	39 1/2	a
Aug.	39 1/2	39 1/2—39 1/2	39 1/2	b
Oats—				
June	34 n	34 n—34 n	34 n	n
July	33	33—33 1/2	33 1/2	n
Aug.	33 1/2	33 1/2—34	34	a
Cash	wheat, corn and oats ranged:			
	Last Year. Saturday.		To-day.	
Wheat—				
No. 2 red	78 1/2	78	77 1/2	78
No. 3 red	74 1/2	74	73 1/2	74
No. 4 hard	69 1/2	69	68 1/2	69
No. 1 white	84 1/2	84	83 1/2	84
No. 2 white	71 1/2	71	70 1/2	71
Corn—				
No. 2	35 1/2	35 1/2—36 1/2	36 1/2	36
No. 3	35 1/2	35 1/2—36 1/2	36 1/2	36
No. 2 white	41 1/2	41 1/2—42	42	42
No. 3 white	38 1/2	38 1/2—39	39	39
Oats—				
No. 2	35 1/2	34 1/2—35	35	35
No. 3	35 1/2	34 1/2—35	35 1/2	35 1/2
No. 2 white	39 1/2	39 1/2—40	40	40
No. 3 white	36 1/2	36 1/2—37	37	37
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
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No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
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No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
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No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
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No. 2 spring	35 1/2	35 1/2—36	36	36
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No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
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No. 2 spring	35 1/2	35 1/2—36	36	36
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No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
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No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring	35 1/2	35 1/2—36	36	36
No. 2 white	35 1/2	35 1/2—36	36	36
No. 3 white	35 1/2	35 1/2—36	36	36
No. 2 yellow	35 1/2	35 1/2—36	36	36
No. 3 yellow	35 1/2	35 1/2—36	36	36
No. 2 hard	35 1/2	35 1/2—36	36	36
No. 3 hard	35 1/2	35 1/2—36	36	36
No. 2 spring	35 1/2	35 1/2—36	36	36
No. 3 spring				